



THE DEPARTMENT OF EPIDEMIOLOGY, BIostatISTICS AND OCCUPATIONAL HEALTH, - SEMINAR SERIES IS A SELF-APPROVED GROUP LEARNING ACTIVITY (SECTION 1) AS DEFINED BY THE MAINTENANCE OF CERTIFICATION PROGRAM OF THE ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF CANADA

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Use of Antimicrobials in the Pediatric Critical Care Setting: A Quest for Balance

MONDAY, 4 NOVEMBER 2019 / 4:00 pm – 5:00 pm
McIntyre Medical Building

3655 promenade Sir William Osler – Martin Amphitheatre Rm 504

ALL ARE WELCOME

ABSTRACT

Antimicrobial resistance is a major clinical and public health problem, and a research priority worldwide. Its control strongly depends on reducing unnecessary antimicrobial prescription and avoiding extending treatment duration beyond patient's needs, as these are associated with selection of resistant bacteria. The optimization of antimicrobial use in pediatric intensive care units (PICUs) is a priority as they present some of the highest rates of antimicrobial resistance and consumption within hospitals, and their resistant strains spread throughout inpatient wards and to the community. We currently lack objective criteria to guide antimicrobial use and treatment duration in children. My research program aims to determine the clinical utility of using infection biomarkers to personalize antimicrobial use in critically ill children.

OBJECTIVES

1. To present the problem of antibiotic over-use and bacterial resistance in PICUs;
2. To describe the decision-making process regarding antibiotic use in the pediatric critical care setting;
3. To present the potential role of biomarkers to tailor antibiotic use for critically ill children.

BIO

Dr. Fontela obtained her medical degree in Brazil in 1997. After concluding her residency training in General Pediatrics, a clinical fellowship in Pediatric Critical Care, and a M.Sc. in Medicine, she completed a second fellowship in Pediatric Critical Care at the Montreal Children's Hospital (2004-2007). Consequently, Dr. Fontela obtained her Ph.D. in Epidemiology

at McGill University in 2011. In 2012, she was hired as an Assistant Professor in the Department of Pediatrics, at McGill University, and as staff physician within the Division of Pediatric Critical Care Medicine of the Montreal Children's Hospital. She is currently the Associate Chair for Research of the Department of Pediatrics, McGill University. Her research focuses on infection control in the pediatric critical care setting. Currently, she studies the use of antibiotics in pediatric critical care units, including the determinants that influence antibiotic usage, the clinical reasoning behind antibiotic-related decisions, and the use of biomarkers to guide antibiotic treatments in this setting.